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Adolescent Dissociation: The Development and Initial Validation of the Adolescent Dissociation Scale.

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ADOLESCENT DISSOCIATION: THE DEVELOPMENT AND INITIAL VALIDATION OF THE ADOLESCENT DISSOCIATION SCALE

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Abstract

The present study attempted to develop and initially validate a self-report screening measure for adolescent dissociative experiences. The Adolescent Dissociation Scale (ADS) is a 49-item, empirically derived, self-report scale designed as a research, screening measure to examine the degree of dissociative experiences in the general population as compared to clinical subjects. Results obtained suggest the ADS is a reliable, highly internally consistent measure. Initial content, construct and disciminant validity were explored. The ADS was found to discriminate between high and low dissociative adolescents. The ADS also was positively correlated with other measures of dissociation.

Introduction

Studies of dissociation generally are underrepresented in the research literature but have gained more empirical attention in the past decade. However, most of these studies focus on adult pathological dissociation. Pathological dissociation is believed to be a result of childhood trauma but often only is recognized and treated during adulthood (Ross, 1989; Kluft, 1985). Few studies have addressed the role of dissociative experiences in adolescents or have differentiated normal dissociation from pathological levels. Likely, this is due to the lack of psychometrically valid instrumentation for measuring child and adolescent dissociation.

Dissociation has been defined as "a response to traumatic stimuli, particularly sexual abuse, which involves a breakdown in the typical correspondence between and/or within the three behavioral response modes, including cognitive, motor, and physiological processes" (Malinosky-Rummell & Hoier, 1991). Repeated use of dissociation as a coping strategy is thought to be reinforced and maintained by negative reinforcement. Malinosky-Rummell and Hoier (1991) suggest children tend to escape the negative experiences associated with child

abuse by dissociating then continue this pattern with other unpleasant events. This definition will be elaborated further in future sections. First, a brief history of dissociation will be given. Then, descriptions of dissociation in adults and children will be reviewed along with assessment measures for the identification of significant dissociative symptomatology.

Brief History of Dissociation

The effects of trauma on the psychological processes was scientifically studied by French and British psychiatrists in the 19th century. One leading researcher was Jean Marie Charcot at the Salpetriere (van der Kolk, Brown & van der Hart, 1989). Others also contributed to the knowledge base including William James and Morton Prince. However, Pierre Janet is credited with pioneering the concept of dissociation which he termed desagregation in his dissertation published in 1889, L'Automatisme Psychologique (Putnam, 1989).

Janet advanced the notion of dissociation as a systematic psychological defense against trauma. The writings of Janet provide understanding of modern day dissociation. Basically, Janet argued that when a person experiences overwhelming emotions which he cannot control,

the memory of that traumatic experience cannot be processed. Instead, it separates from consciousness and is dissociated. However, these memories do not remain dissociated, "they often return in the form of fragmented flashbacks, somatic complaints, feelings of reliving of the trauma, visual images or behavioral reenactments". (Janet, 1889, 1894a, 1898, 1909a, 1911 as cited in van der Kolk, 1989). A major contribution of Janet's theory was that the traumatic experiences (e.g., incest) were thought to be real as opposed to Freud's view that reported traumas were fantasized by the patients (Putnam, 1989).

Another leading theorist on dissociation was Alfred Binet (Ross, 1989). He published scientific works on dissociation in the 1890's. Binet utilized hypnosis and induced amnesias in order to demonstrate what was termed the "doubling of consciousness" (Binet, as cited in Ross, 1989). Many of Binet's early experiments are being revived by modern scientist's such as Spanos, Weekes, Menary, & Bertrand (1986) and Hilgard, (1977, 1984).

Overall interest in dissociation theory waned during the early 20th century. Putnam (1989) outlined several factors that contributed to the short-lived interest in dissociation and the resurgence of interest in this area

in recent years. Although Janet and his colleagues took an experimental approach to the study of dissociation, much of this research was based on single case studies and lacked control groups (Putnam, 1989). Therefore, the scientific community did not readily accept Janet's findings. Other problems leading to the decline of empirical interest in dissociation was the increasing interest in Freudian psychoanalysis and the notion of repression. Much of the findings of Janet was reinterpreted by Freud as evidence of repression of intolerable impulses rather than dissociation of actual traumatic events (Putnam, 1989).

Dissociation is now receiving renewed interest in the research literature for several reasons (Putnam, 1989). First, multiple personality disorder (MPD), the most extreme form of dissociation, has been increasingly diagnosed along with exponential reporting of childhood sexual abuse. This also has provided clear documentation of dissociative experiences in individuals along with an etiological base of the emergence of pathological dissociation. Secondly, the role of dissociation in post-traumatic stress also is becoming more recognized as an essential feature of that and other trauma related

disorders. Finally, empirical experimentation by Putnam and Hilgard (1977, 1984) and colleagues on the hidden observer phenomenon has provided for a return of physiological research on dissociation.

Modern Day Cognitive-Behavioral View of Dissociation

In his book, Science and Human Behavior, B. F. Skinner (1953) discusses multiple personality and the concept of the self. He states, "We may quarrel with any analysis which appeals to a self or personality as an inner determiner of action, but the facts which have been represented with such devices cannot be ignored." Skinner further states, "A concept of the self is not essential in an analysis of behavior, but what is the alternative way of treating the data?" Clearly, Skinner set the stage for a behavioral view of dissociative experiences, an area not commonly thought of as consistent with overt behavior analysis. As previously stated, Malinosky-Rummell and Hoier (1991) recently described dissociation in a behavioral context. Dissociation has been defined as a consequence of traumatic stimuli in which the normal interaction between the three behavioral response modes, (i.e., cognitive, physiological and motor) is interrupted. Dissociation is thought to be an escape mechanism,

maintained through negative reinforcement (Malinosky-Rummel, et al., 1991). That is, dissociation is used as a method of escaping the memories of experiences of sexual or other forms of abuse. Repeated use of dissociative methods during abuse reinforces its future use and often is generalized to other aversive situations (e.g., abuses or stressors unrelated to sexual abuse). For example, when a child is being molested by a parent, he/she may dissociate in the form of amnesia for the event (Kluft, 1985). Therefore, his/her memory is not connected to physiological experience. This way, when confronted with the stimuli (the abuser) in the future, the child will not remember the abuse and be able to respond as if the abuse did not occur. As such, the cognitive component is disconnected from the physiological and motor modes. However, some stimuli such as physical pain or behavior patterns may emerge in which the child has no cognitive understanding.

Malinosky-Rummell and Hoier (1991) elaborate further on their behavioral view of dissociation as follows:

> Dissociative phenomena may result in several marked day-to-day or even hour-to-hour variations in one's skill or response repertoires in these modes. Cognitively, dissociative symptoms may include losses of memory about oneself or periods of time,

> especially those which involve traumatic or painful experiences (APA, 1987; Fagan & McMahon, 1984; Kluft, 1984, 1985). Dissociative motor responses encompass rapid and extreme changes in behavior, such as handwriting, age-appropriateness, and artistic and/or athletic skills, and marked diminished or selectively focused responsiveness to environmental stimuli. Physiological aspects of dissociation may involve rapidly changing somatic complaints. Dissociative responses between behavioral response modes may include rapid, dramatic changes in physiological arousal (e.g., anger, fear) with no cognitive recollection of a previous physiological state. Dissociative responses between cognitive and behavioral response modes might be loss of memory about recent overt actions, such as misbehavior (Fagan & McMahon, 1984; Kluft, 1984).

These phenomena, such as amnesias, somatic complaints, variation in skills and physiological arousal, have all been reported in the literature on adult and child dissociative experiences. The explanation given for these is the lack of association between the response modes caused by repeated learning trials of escape behavior.

This behavioral view is rather simplistic and does not account for all of the dissociative experiences described in the published literature. Skinner's original explanation of the self and selves (in multiple personality) is as follows: "Personalities may also be multiple. Two or more personalities may appear in alternation or concurrently. They are often in conflict

with each other, and one may or may not be aware of what the other is doing" (Skinner, 1953, p. 284). Skinner's explanation of multiple personalities conforms to an information processing model and both provides for a more comprehensive understanding of dissociative symptomatology.

In Skinner's model (1953), the self or personality is "simply a device for representing a functionally unified system of responses" (Skinner, 1953, p.285). Behavior is thought to be organized within the person in a system of response sets. For example, some sets are developed and maintained due to discriminative stimuli around certain occasions such that Occasion A has a separate set of behaviors that result in reinforcement as compared to Occasion B (Skinner, 1953) (e.g., behavior at a party as compared to behavior at church). These different response sets are connected in a well-functioning individual. However, in a person with multiple personality, these response sets can function totally independently and are not unified (Skinner, 1953).

The information processing model of dissociation is very similar to Skinner's interpretation of the self, except the computer metaphor is used instead of response

set metaphor. Here, the human brain is thought to be divided into many computer processing centers (Spiegel, 1990). Each of these centers contain physiological, cognitive and motor response modes. In the nondissociated person, access to information stored in these computers are readily available. Free communication exists between all systems. In a dissociated person, there is a lack of communication between these computer systems, so that the person is not always able to access information stored at specific terminals (Spiegel, 1990). This is also known as the parallel processing model in which mental structures store related sets of information independently from other sets. In multiple personality, stimulation of one personality state will activate some systems and suppress incompatible other systems (Spiegel, 1990).

There are alternative theoretical explanations for dissociation. Many authors in the field of dissociation rely on a hypnosis or autohypnosis model. However, Ross (1989) notes that the field of hypnosis lacks an adequate theoretical model. Therefore, no effort will be made to analyze dissociation in terms of hypnosis theory.

Evidence is overwhelming from retrospective reports that dissociative symptomatology is exhibited in early

childhood (Ross, 1989). However, the majority of severely dissociated patients are diagnosed after age 20. According to Kluft (1985), only 11% of the total number of diagnoses of MPD are made prior to age 20 and only 3% before the age of 12. Kluft further emphasized the potential harm of undiagnosed child and adolescent pathological dissociation. The limited research available indicates much more successful and rapid treatment if dissociation is addressed during childhood or adolescence as opposed to long-term, complex adult therapy (Ross, 1989). Furthermore, the average length of time an adult spends in the mental health system before a proper diagnosis of MPD is approximately 7 years (Putnam, 1986; Ross & Norton, 1989). It is estimated that patients receive about 3 different diagnoses prior to the diagnosis of MPD.

Peterson (1990) reviewed probable explanations for the lack of recognition of dissociation before adulthood. Perhaps it is extremely rare or nonexistent (Dell, 1988) in childhood. Childhood dissociation may be misdiagnosed as other forms of psychopathology (Coons, 1984). Behavior fluctuations and symptomatology may be misinterpreted as characteristic of other diagnoses or other diagnoses may

be evident along with extreme dissociation (Fagan & McMahon, 1984). Finally, clinicians may not assess for pathological dissociation, or ask pertinent questions that could lead to the identification of symptomatology. For example, published structured interviews for children rarely contain dissociative symptomatology. Furthermore, childhood dissociation and adult dissociation are somewhat dissimilar. The disorder in childhood, for instance, tends to lack the somatoform complaints. Furthermore, self-injurious behavior patterns typically are not present in children.

Assessment Instruments

Dissociation is characteristic of disorders for which symptom domains have been delineated in adults (Bernstein & Putnam, 1986). Although child and adolescent dissociative disorders are recognized, firm empirical support is lacking. This likely is due to the unavailability of reliable and valid measurement instruments. Without proper assessment techniques, valid modes of treatment cannot be identified and properly evaluated.

Adult Rating Scales

One instrument, the Dissociative Experiences Scale (DES), was developed as a screening measure for adults (Bernstein & Putnam, 1985). It has been shown to be internally consistent, have high test-retest reliability and to discriminate adults with dissociative disorders and MPD from other types of nondissociative pathology, as well as from normals. Bernstein and Putnam developed DES items based upon clinical data and interviews, consultation with experts working in the field of dissociative disorders, and scales involving memory loss. The items include the experiences of absorption, depersonalization or derealization, and disturbances in identity, memory, awareness and cognition. Items related to dissociation, such as mood and anxiety problems, were purposely excluded from the DES so as to have a more pure measure of dissociation.

The authors made two major hypotheses, first, that dissociation lies on a continuum. Therefore, subjects previously diagnosed with pathological dissociative disorders would be expected to endorse a greater variety of dissociative experiences as well as greater frequency of these experiences than normal subjects. Furthermore,

other nondissociated psychiatric patients were predicted to score somewhere between the normal and dissociative groups on this continuum. Another hypothesis advanced by Bernstein and Putnam was that the data would be skewed similar to the curve of hypnotic susceptibility (i.e., ability to be hypnotized) (Hilgard, 1977). Results confirmed both of these hypotheses. Data for all groups was skewed and leptokurtic and the number and frequency of dissociative experiences was found to lie on a continuum (Bernstein & Putnam, 1985). Normal adults were represented on one extreme and subjects diagnosed with MPD, the most severe form of dissociative disorders, were on the other end. The continuum from lowest to highest scores and the number of subjects in each group were as follows: normal adults (n=34), alcoholics (n=14), phobic anxiety (n=24), agoraphobics (n=39), adolescents (i.e., college students, 18-22 years of age) (n=31), schizophrenics (n=20), posttraumatic stress disorder (n=10) and multiple personality disorder (n=20).

Reliability of the DES was obtained via Spearman-Brown split-half (coefficients ranging from .71-.96) and test-retest ($r=.84$, $p<.0001$) procedures. Construct validity was demonstrated by the high correlation between

item scores and scale scores. In addition, the authors state evidence of criterion-related validity in that the scale was able to differentiate subjects with and without a diagnosis of dissociative disorder.

There are several limitations of this study. Clearly the number of subjects in each condition was small and generalization of findings should be done very cautiously. Furthermore, the meaning of the rather high score for normal college students warranted further investigation. Several hypotheses for these results have been advanced. Perhaps college students have more pathological dissociative experiences or the DES may be measuring something different for these students as opposed to older adults. Standardization of the DES on true adolescents (ages 12-18) and college students would distinguish normal amounts of dissociation from pathological levels.

In a small validation study conducted in the Netherlands, the DES was found to have good internal consistency and criterion-related validity (Ensink & van Otterloo, 1989). In this study, two versions of the DES were administered. The standard form was translated into Dutch and administered along with an alternate form, which included the 37 original items of the DES plus 10 dummy

questions inserted throughout the measure. These dummy questions consisted of common dissociative phenomena that normal adults would likely endorse (e.g., walk into a room and forget why you went in there). These dummy questions were not included in the statistical analyses. Results indicated that overall scores for the DES without the dummy items were higher than the version with the dummy questions. The authors concluded that the dummy questions serve to counteract any response set tendencies. The authors further asserted that since the DES was constructed to screen for the presence of dissociative disorders, most items are extreme for normals. Therefore, when normal subjects complete the DES, most items will evoke a "0% of the time" response. Subjects will then tend to correct for this by being more positive on the ratings of items that they do recognize, thus, leading to higher overall DES scores.

Another validation study of the DES was conducted by Edward Frischholz (1990). The DES was administered to 259 college students, 33 patients with MPD and 29 subjects diagnosed with a dissociative disorder not otherwise specified (DDNOS). Test-retest reliability within a one month interval was found to be excellent (coefficient of

absolute agreement=.93; coefficient of relative agreement = .96). Furthermore, the internal consistency of the DES was high (alpha for students=.93; alpha for MPD=.94; alpha for DDNOS=.94; alpha for combined total sample=.95). Scores for the MPD and the DDNOS groups were significantly higher than those of the college students. The scores of the MPD subjects were significantly higher than those of the DDNOS subjects. These results provide further validation of the DES as a reliable and valid measure of dissociative psychopathology for adults.

Use of the DES with Adolescents

The DES has been used with clinical and nonclinical adolescents in several published studies (Ryan & Ross, 1988; Sanders, 1991). However, normative data has not been obtained for an adolescent population. The authors caution against the use of this scale with adolescents unless further reliability and validity data is generated for this population.

Ross and his colleagues (Ross, Ryan, Anderson, Ross & Hardy, 1989) administered the DES to 168 adolescents between the ages of 12-14. They compared these scores to those of 345 college students and 30 geriatric patients. Results indicated the data were dispersed in a left-skewed

manner and there were no significant differences between males and females in the junior high or college level groups. These results are consistent with previously published studies using the DES with adults. Ross, et al. (1989) concluded that dissociative experiences are more common in early adolescence than in young adulthood and these dissociative experiences continue to decline with age. Ross conducted a follow-up study using the same sample of college students. A small sample of low dissociators (scoring below 5) and high dissociators (scoring above 22.6) were identified based upon DES scores and administered the SCL-90, the Millon Clinical Multiaxial Inventory, and were interviewed using the Dissociative Disorders Interview Schedule (DDIS). These two groups were differentiated on all three instruments. Based upon the DDIS, 75% of the high dissociators qualified for a DSM-III-R dissociative disorders diagnosis whereas none of the low dissociators could be classified. Through extrapolation of the data, Ross projected an 11% incidence of dissociative disorders among college students which if confirmed would indicate dissociative disorders are presently grossly underestimated and underidentified.

Sanders and Giolas (1991) tested the hypothesis that dissociation in adolescence is positively correlated with childhood stress and abuse. The subjects were 47 hospitalized adolescents between the ages of 13-17. Scores on the DES correlated significantly with self-reported physical, sexual and emotional abuse, neglect and negative home atmosphere as measured by the Child Abuse and Trauma Scale (Sanders & Giolas, 1991). Scores on the DES were positively skewed and did not differ significantly between males and females. Systematic analysis of DES scores and DSM-III-R diagnoses were not possible due to the small number representative of different diagnostic groups (e.g., mood disorders, n=12,; adjustment disorder, n=5; attention deficit disorder, n=1). However, it was noted that patients with high DES scores were dispersed across diagnostic categories. Overall scores for the adolescents in this study were higher than those of other studies using adult and college student populations. However, the shape of the distribution and the range of scores between the adolescents and college students in a previous study by Sanders (Sanders, McRoberts, & Tollefson, 1989) were similar.

Child and Adolescent Checklists

In order to aid in the diagnosis and understanding of childhood dissociation, several checklists have been developed. All of these rely on informant report of behavior rather than self-report by the child or adolescent. There are three commonly referenced checklists of child and adolescent dissociation (Kluft, 1984; Putnam, 1981; Fagan & McMahon, 1984). All share similar items related to amnestic experience and vast fluctuations in behavior. Furthermore, Peterson (1990) grouped the items from all checklists into the following categories: "amnestic experiences, trance-like states, fluctuations in behavior, third person quality, developmental issues, conduct disordered behavior (including lying), hysterical symptoms/sleep disturbance, mood disorder symptoms, Schneiderian symptoms and symptoms supporting other diagnoses." Other item categories that relate to dissociation include: failure to respond to intervention, abuse history and family history of dissociation. Based upon the similarities of these checklists, Peterson proposed diagnostic criteria for what he terms "Dissociation Identity Disorder". Peterson listed several reasons for the broader category of DID: 1)

many children with MPD-like symptoms do not have well-defined alters, therefore a diagnosis of MPD would be inaccurate; 2) this alerts clinicians to consider the dissociative continuum and differential diagnosis of disorders of childhood; 3) the diagnosis of DID is thought to be less disturbing to the child, family and community than MPD; 4) DID could be used as an interim diagnosis until MPD could be definitively diagnosed. The criteria for DID is as follows:

A. A disturbance of at least six months during which one or two of the following are present:
    1. Recurrent amnestic periods or missing blocks of time
    2. Frequent trance-like states or appearing to be in a daze or in another world

B. Major fluctuations in behavior which may include school or work performance and behavioral variations and apparent social, cognitive, or physical abilities

C. At least three of the following:
    1. Refers to self in third person or uses another name to refer to self
    2. Has imaginary companion
    3. Is seen lying

4. Has antisocial behaviors
5. Is sexually precocious
6. Has intermittent depression
7. Has frequent sleep problems
8. Has auditory hallucinations from inside the head

Tyson (1992) applied this criteria of "Dissociation Identity Disorder" proposed by Peterson (1990), and information obtained in the various published checklists of childhood MPD/DISS to six of his case studies. All six subjects were caucasian and ages ranged from eight years to twelve years old. Tyson also provided several additional possible indicators of dissociative disorders.

Results indicated that six of Peterson's descriptors applied to all six case studies: Amnestic, trancelike, behavior fluctuations, seen as lying, conduct disordered, and intermittent depression. Additional common symptoms were representative of other checklists such as Kluft's (1984), Putnam's (1981) and Fagan and McMahon's (1984). For example, three of the six had a parent with a dissociative disorder and one had a sibling diagnosed with MPD. In addition, the majority of the sample did not respond well to previous interventions and five were

likely victims of repeated abuse. Other commonalities included three of the six had histories of seizure disorders and three were viewed as having social skills deficits (Tyson, 1992). Five out of six children were characterized as hyperactive or meeting the criteria for Attention Deficit Disorder. Three of the six were classified as having a Specific Learning Disability (Tyson, 1992). ADD and learning disabilities have not been cited as precursors of dissociation or MPD but may be factors which alert therapists to the possibility of a dissociative disorder and warrant further assessment.

Another checklist for dissociation was recently developed by Reagor and colleagues (1992). The Child/Adolescent Dissociation Checklist (CADC) is a screening measure of child and adolescent Multiple Personality Dissociative Disorders (MPD/DISS). Thus far, professional working with children and adolescents complete this checklist based upon knowledge obtained via contact with those cases. Rigorous statistical analyses were performed which showed the CADC to be a valid and reliable screening instrument. The CADC consists of 13 index characteristics and was developed based on the indices delineated by Putnam (1981), Kluft (1984) and

Fagan & McMahon (1984) as well as the authors' clinical experiences with children, adolescents and adults. However, several items were purposely excluded, those involving third person and other name references clearly associated with MPD as well as those that were not thought to discriminate children with from those without MPD or other dissociative disorders. Two validation studies were performed using the CADC, the first in 1986 and the second one year later. However, both studies have recently been published in one article (Reagor, Kasten, Morelli, 1992). In the first study, 115 completed CADCs were obtained from professionals working with children or adolescents. These professional were contacted by telephone and interviewed regarding diagnosis and other demographic information. A history of abuse rating on a 4-point scale (1=none, 4=ongoing-severe) was made from information gathered. Subjects ranged in age from 3 to 18, with the mean age of 11.5 years. Of the 115 subjects, 17 were previously diagnosed with either MPD or other dissociative disorders and an additional 34 were given either diagnosis after the use of the CADC in this study.

Factor analysis of the CADC extracted five independent factors that accounted for 55% of the variance

of the checklist. The following factors were identified: 1) Emotional Overloading; 2) Psychological Symptoms and Illness and Injury; 3) Physical/Emotional Abuse Causing Inconsistency; 4) Family History of Dissociative or Multiple Personality; and 5) Major Traumatic History. Stepwise regression analysis was also conducted with the checklist items on the dependent variable of multiple personality or dissociative disorder in order to determine the contribution of significant items. The following four steps were found to be significant and predictive: periodic intense depression, perplexing forgetfulness, fearful regressive episodes and traumatic history of sexual abuse. In a forced multiple regression, only the items of periodic intense depression and fearful regressive episodes were significant. Analysis of variance on the sum of the test items by diagnosis of MPD/DD was significant.

In a one year follow-up study, professionals were recontacted and asked to provide updated information on the original sample of 115 subjects. Completed data were obtained on 48 subjects from the original sample. This smaller sample was very similar with regard to age, ethnicity and sex of the larger, 1986 sample. Because of

this small sample size (i.e., only 13 with evidence of significant dissociation), advanced statistical procedures could not be conducted. However, Cramer's Chi square on both sets of data indicated that traumatic history of sexual abuse, periodic intense depression, fearful regressive episodes and perplexing forgetfulness were significantly predictive of MPD/Dissociative disorders. There are several limitations of both of these studies. The return rate in the follow-up study was very low. The professionals participating were not chosen randomly and diagnoses were not made in any standardized manner. Furthermore, the diagnosis of MPD/DISS was made by the same professional completing the CADC. Therefore, the experimenters were not blind or independent and bias may have contributed to the results. Despite these limitations, the CADC appears to be a useful screening measure of child and adolescent dissociative symptomatology and further scientific investigation is warranted.

The above studies support the utility of Peterson's diagnostic criteria as well as checklists previously reviewed for the screening of children and adolescents for pathological dissociation. However, these checklists are

all designed for professional use and must rely on the therapists' interview skills and observations by other in order to obtain pertinent information.

The Child Dissociative Checklist, CDCL (Putnam, 1988) is a parent-report measure of child dissociation containing 16-items assessing observable dissociative symptoms. A total score is obtained by summing the total of each item ratings on a 3-point scale (0=not true, 1=somewhat or sometimes true, and 2=very true). Items were derived from adult reports of dissociative symptomatology. Recently, the CDCL was found to significantly differentiate sexually abused females from nonabused matched control subjects (Malinosky-Rummell & Hoier, 1991). In this same study, the psychometric qualities of the CDCL was investigated. Parents of 10 sexually abused females and 50 nonabused controls from the community completed the CDCL along with the Child Behavior Checklist (CBCL, Achenbach & Edelbrock, 1983). The children aged 7 to 12 years also were interviewed using 16-items of the semi-structured Child Interview for Subjective Dissociative Experiences (CISDE) by Liner (1989). Results indicated the sexually abused group had significantly higher scores on the CDCL, CISDE, and the

CDCL and CISDE combined than the nonabused group. The CDCL, CISDE and a six-item dissociation subscale of the CBCL were all found to have sound psychometric qualities and to be valid measures of dissociation. Correlations between the CDCL (rated by the parent) and the CISDE (interview of the child) were lower than the correlations by the same reporter over time (test-retest of the CDCL and CBCL). Due to the very small sample size of the sexually abused group (n=10), complex statistical procedures could not be performed and findings cannot be confidently interpreted.

All of the above reviewed checklists rely on other's reports of behavior. A self-report scale would provide a standardized assessment procedure and allow the adolescent to give first hand information. A self-report rating scale would also aid in the epidemiological studies of dissociation in adolescents by providing an anonymous means of reporting these experiences.

Clearly, dissociative experiences have been linked to adult as well as child psychopathology with the most severe form being multiple personality disorder. Many studies of adult dissociation have provided validity for these pathological behaviors. However, empirical studies

of child or adolescent dissociative experiences is lacking despite evidence that adult pathological dissociation is rooted in childhood, typically as a result of traumatic experiences. The DES has been used with adolescents in previous studies but has not been normed on that population.

Purpose

Given the available data on the reliability and validity of the DES and the checklists for childhood dissociation, a new self-report measure of adolescent dissociation is proposed. Items deemed indicative of dissociation from the DES and child checklists (ie., Kluft's, (1984) Putnam's (1981), Fagan & McMahon's (1984), Peterson's (1990) and the Reagor's (1992) were used as the basis for the Adolescent Dissociation Scale (ADS) (see Appendix A).

The purpose of the present study was to develop the ADS and evaluate the psychometric properties of this adolescent, self-report measure of dissociative symptomatology. Reliability, content, construct and discriminant validity were explored. Normative data also was obtained to determine the extent of dissociative experiences in the normal population as compared to a high

dissociative group. Normative data for the DES also was gathered to determine how reliable that instrument is as a screening measure with the adolescent age group.

Method

Subjects

The sample consisted of 373 adolescents between the ages of 12 and 18 years from the south Louisiana. Both a large group (from the general population) (N=330) and a small clinical group (consisting of adolescents with a history of sexual abuse and/or trauma, such as physical abuse or neglect, family violence, foster care) (N=43) were recruited.

Adolescents were enlisted on a voluntary basis from schools, mental health centers, private practitioners, and the state Office of Community Services. Signed written consent to participate in this study was obtained from each adolescent and a parent or guardian (see Appendices B & C). Individual agency's policies were followed in order to receive permission to recruit subjects.

The total sample was composed of 71% whites and 24% African Americans (44% males and 56% females). Twenty-eight percent of the subjects endorsed having received psychological counseling. The average grade point average for four major subjects was 2.7 on a 4 point scale. Socioeconomic status was calculated using the Hollingshead Index (Hollingshead & Redlich, 1957). The mean score was

45 with a range of 11 to 66. These scores were categorized into quartiles for analyses. High levels of stress as a child and as an adolescent were reported by 12% and 25% of the subjects, respectively. The clinical subjects (n=43) consisted of 12 males and 32 females (23 African Americans and 20 whites). Table 1 gives a breakdown of these demographic variables.

Measures

Demographic Questionnaire. Subjects completed a brief demographic questionnaire in order to determine grade and age levels, academic achievement, socioeconomic status, and other variables related to family environment. Two questions regarding the adolescents perception of their overall stress as a child and as an adolescent were included on the demographic form. (See Appendix D).

Adolescent Dissociation Scale (ADS). The ADS was designed for this study and consists of items which purport to measure adolescent dissociative experiences. Content validity of the ADS was assured by item selection, professional review and readability rating indicating its appropriateness for adolescents. Items were generated after extensive review of the limited published literature on child and adolescent dissociation. Existing adult

Table 1

Demographic Information

Variable	n	Percent
Race		
White	264	71
Black	89	24
Other	17	5
Sex		
Male	162	44
Female	210	56
Age		
12	39	10
13	57	15
14	65	17
15	61	16
16	69	19
17	49	13
18	33	9

	Stress as Child	Stress as Adolescent
Not at all	224 (60%)	94 (25%)
Somewhat	103 (28%)	184 (50%)
Very Much	44 (12%)	92 (25%)

measures of dissociative disorders (e.g., the DES; Bernstein & Putnam, 1986) were reviewed for appropriateness of content. Furthermore, an expert in the field of adolescent and adult dissociation was consulted during every stage of scale development. Items were added based upon clinical experience of this expert as well as input from eight adults diagnosed as having Multiple Personality Disorder. Graduate students experienced in evaluating children and adolescents also reviewed the symptom list and aided in wording items in order to reduce the reading level of the scale. The Flesch-Kincaid readability index was calculated indicating the ADS to be at the 4.8 grade level. Thus, the ADS was appropriate for the adolescent sample in this study.

Adolescent respondents were instructed to rate each item on a 4-point likert scale with respect to degree that he/she experienced a particular problem in the past 6 months: "not at all" (0), "just a little" (1), "pretty much " (2) or "very much" (3). The format of the ADS was modelled after similar existing rating scales (Conner, 1989).

Dissociation Experiences Scale (DES) (Bernstein & Putnam, 1986). The DES is a self-report measure and

consists of 28 items that has been shown to have good reliability and validity (Bernstein & Putnam, 1986). See Appendix E). Subjects were given the DES in order to compare scores with the ADS and to obtain adolescent norms for this adult screening measure of dissociation. Subjects were instructed to place a slash mark on a 100 mm line indicating the degree to which they have the experiences listed in each item. Scores range from 0% to 100% for each item. Total score is obtained based upon the number of items endorsed as well as the mean or median rating of all items.

Child Behavior Checklist - Youth Self Report. (Achenbach & Edelbrock, 1987). Subjects were asked to complete the behavior problem scale of the YSR which consists of 112-items measuring internalizing and externalizing behavior problems in adolescents aged 11 through 18. Eight subscales are derived which include: Withdrawal, Anxious/Depressed, Thought Problems, Somatic Complaints, Social Problems, Attention Problems, Delinquent Behavior, and Aggressive Behavior. The standard subscales of the YSR has been shown to have good psychometric qualities and to differentiate clinical from non-referred subjects (Achenbach & Edelbrock, 1991).

A post-traumatic stress subscale has been proposed by Wolfe and her colleagues (Wolfe, Gentile, Michienzi, Sas, & Wolfe, in press) which consists of 20 items from the parent version of the Child Behavior Checklist (CBCL) and has an alpha level of .89. Those same items appear on the YSR and will be evaluated statistically in the present study. Another proposed subscale of the CBCL is a dissociation scale developed by Malinosky-Rummell and found to have adequate item generalizability (Malinosky-Rummell & Hoier, 1991). The dissociation subscale consists of the following six items from the CBCL: Acts too young for his/her age; can't concentrate; confused or seems to be in a fog; day-dreams or gets lost in his/her thoughts; stares blankly; and sudden changes in mood or feelings. Items on the YSR similar to those included in the PTSD and Dissociation subscales of the Child Behavior Checklist were combined for exploratory purposes and are referred to as the proposed Dissociation/PTSD subscale of the YSR. See Appendices F & G for the YSR and the proposed Diss/PTSD scale.

Modified Child Interview for Subjective Dissociative Experiences (M-CISDE; based upon the CISDE; Liner, 1989) The CISDE is a 26-item semi-structured interview for

children which purports to measure a variety of dissociative experiences. A 16-item shortened version of this scale was used in a study by Malinosky-Rummell and Hoier (1991) and found to have excellent scorer and item generalizability for sexually abused and nonabused subjects. This scale also significantly differentiated these two groups. However, this interview was originated for use with children. Therefore, for the present study, this scale was modified to better measure adolescent dissociation. Additional items were generated to form a 23-item interview measure. (See Appendix H).

Child Abuse and Trauma Questionnaire (CATQ, Sanders & Giolas, 1991). (See Appendix I) Clinical subjects and controls were asked to complete the CATQ, which is also known as the Home Environment Scale. The CATQ consists of 38 items related to negative treatment by caretakers and negative home environments. Subjects respond to how frequently the events ocurred during chilhood on a 5-point scale ranging from "always" to "never". The CATQ yeilds a total score as well as the following factor scores: Physical abuse and punishment, psychological abuse, sexual abuse, neglect and negative home atmosphere. Higher scores are indicative of more negative perspections of

childhood experiences and home atmosphere. This scale demonstrated adequate reliability and validity. The CATQ significantly correlated with the DES scores of hospitalized adolescents (Sanders & Giolas, 1991) and college students (Sanders, 1989).

Procedure

Participating adolescents completed the demographic questionnaire, DES, ADS, and YSR in random order. Examiners collected the rating scales as soon as they were completed and answered participant's questions. The adolescents were told that all answers would remain confidential and anonymous and they could withdraw from participation at any time. Furthermore, they were told the purpose of the study was to investigate the frequency with which adolescents have the experiences listed on the ADS. (Appendix J contains the Debriefing Statement)

After completing the questionnaires all clinical subjects and controls were administered the M-CISDE and the CATQ to determine group placement. Subjects with high scores on the DES and high scores on the M-CISDE were included in the high dissociator group (n= 21). Those with nonsignificant DES scores and low M-CISDE scores were included in the control group (n= 27).

Results

Item Analysis and Internal Consistency

The internal structure of the ADS was determined by Cronbach's alpha for the total scale and item analysis of item-total correlation coefficients. The non-clinical sample was utilized for these calculations of internal consistency and content validity. Because the current sample consisted of adolescents aged 12-18, and the original study of the DES was normed on 18 to 22 year old adolescents, Cronbach's alpha was calculated for the DES. However, since the DES is an existing scale with a great deal of validity data from previous published studies, no attempt was made to alter the item content. Reliability estimates were also determined for the M-CISDE scale because it was modified from the original CISDE so as to be more valid for adolescent dissociation. The proposed Diss/PTSD scale of the Youth Self-Report also was subjected to reliability testing. Items were removed based upon low item-total correlations and the refined scale was used for further statistical analyses and validity studies.

Only one item was eliminated from the ADS based upon a low item-total correlation (i.e., less than .20). Item 9, "sleepwalk", had a correlation coefficient of .17. The new scale consisted of the remaining 49 items with a Cronbach's alpha of .95 and item-total correlation coefficients ranging from .32 to .68. Appendix K contains a table of item-total correlations and means and standard deviations for individual items of this 49-item scale. The high alpha indicated that the 49 item ADS is a highly internally consistent measure.

The 28 items of the DES yielded an alpha of .94 with item-total correlation coefficients ranging from .40 to .71. Therefore, all items of the DES were retained in the analyses. Thus, the DES was deemed reliable and appropriate for this sample of adolescents.

The modified interview (M-CISDE) originally consisted of 23 questions. However, after item analysis, the following four items were eliminated due to poor reliability coefficients: Item 1 (Punished for doing things feel certain did not do), Item 4 (Accused of lying when had not lied), Item 9 (Listen to someone talk but not hear part or all of what was said) and Item 21 (Have feeling hands or feet had changed in size). Cronbach's

alpha of the remaining 19 item scale was .81 with item-total correlation coefficients ranging from .28 to .56 (see Appendix L). These results demonstrate adequate internal consistency of the M-CISDE.

The proposed Diss/PTSD subscale of the Youth Self-Report also was subjected to reliability analysis. Twenty-one of the 23 items were retained having correlation coefficients ranging from .22 to .56. Cronbach's alpha for the refined 21-item scale was calculated to be .85 (see Appendix M). Thus, the refined Diss/PTSD subscale was deemed reliable.

Inter-rater reliability was assessed for the scoring of the M-CISDE due to multiple scorers of this interview. Kappa Coefficient was calculated to be .96 indicating excellent inter-rater reliability. Therefore, the scores were considered accurate.

The ADS was subjected to principal components factor analysis with varimax rotation. Eleven factors were obtained accounting for 60% of the variance. Meaningful interpretation of the factors could not be obtained so subsequent analyses were based upon total score.

Descriptive Data

The means, standard deviations and median scores of the ADS, DES, M-CISDE, PTSD subscale and CATQ are presented as Table 2. Because there were no significant effects found for the demographic variables, descriptive statistics are reported for the sample as a whole and are not subdivided.

Construct Validity

Construct validity was assessed by correlating the ADS with other dependent and independent variables. Due to a non-normal distribution of the ADS and DES total scores, both parametric analyses and confirmatory, less powerful non-parametric statistics were examined. The Pearson Product Moment correlations of the ADS with the other variables are listed in Table 3.

The ADS was found to correlate highly with the other measures of dissociation, thus, lending support to the concurrent validity of the instrument. The correlation coefficients of the ADS and DES yielded Pearson r = .73. The ADS significantly correlated with the Dissociation/PTSD subscale of the YSR with a coefficient of Pearson r = .64. The ADS also correlated moderately with the M-CISDE (r = .65). Theoretically related

Table 2

Descriptive Statistics

Measure	N	Mean	St. Dev.	Median
ADS	373	33	21	28
DES	372	19	15	16
M-CISDE	99	5	3.8	4
CATQ	102	41	26	31
Diss/PTSD	371	14.7	7.15	14

Table 3

Pearson's Product Moment Correlation Matrix

	ADS	DES	Diss/PTSD	M-CISDE	CATQ	STR/Ch
ADS	1.00					
DES	.73	1.00				
Diss/PTSD	.66	.44	1.00			
M-CISDE	.65	.52	.48	1.00		
CATQ	.39	.34	.39	.29	1.00	
Stress/Child	.30	.27	.18	.20	.65	1.00

All correlations are significant at the .05 level

constructs of stress during childhood, stress during adolescence, and trauma also correlated significantly with ADS total score. The correlation coefficient for childhood stress was r = .30. Adolescent stress correlated significantly with ADS total score having a correlation of .19. Total score on the trauma scale correlated with ADS scores (Pearson r = .39). Significant correlations were not obtained between the ADS and the demographic variables of age, grade, SES, race or gender.

To further determine the validity of the ADS as a measure of adolescent dissociation, the high dissociator group was formed based upon scores on the DES (i.e., total score > 31) and the interview (i.e., total score > 6). Subjects met the criteria for high dissociators if they received high scores on both the DES and the M-CISDE. Low dissociators were those with scores less than 10 on the DES and scores less than 3 on the M-CISDE. There were 27 subjects classified as controls (low dissociators) and 21 subjects who met the criteria for high dissociators.

To determine which ADS items highly differentiated high and low dissociators, item endorsement rates were subjected to a Chi-Square procedure. Forty-eight of the 49

items were significant at the .05 level. Item 42 (Don't seem to have any feelings) did not discriminate the two groups (Chi Square = 2.69, df=1, $p < .1005$). Results are listed in Table 4. The strongest discriminators were items related to memory loss or confusion, flashbacks, and inconsistent behavior and skill levels (e.g., some days act so differently I feel like two different people).

To further assess discriminant validity of the ADS an analysis of variance was conducted using ADS total score as the dependent variable and group membership (high dissociator group vs. low dissociator group as the independent variable. Significant effects were found for dissociation. Subjects in the high dissociator group scored significantly higher on the ADS than those classified as low dissociators (Chi-Square = 33.6, N=47, df=1, $p < .001$).

Discriminant Function Analysis

Discriminant function analyses were performed in order to determine the reliability of the ADS to classify high dissociative subjects from non-dissociative normal subjects. Total score on the ADS was used to predict group membership. ADS total score correctly classified 94% of the subjects (Wilk's = .28, $p < .001$). Table 5 presents the classification summary table.

Table 4

Chi Square for ADS Item Score by High and Low Dissociation Group

Item	Chi Square	Sign. Level
1) Walk into a room and suddenly forget why I went in there.	10.09	.0015
2) Feel like I'm in a daze or feel like I'm in another world.	20.76	.0001
3) Listen to the radio and suddenly realize that I don't know what was just said.	8.24	.0041
4) Get so involved with something that I lose track of time.	17.34	.0001
5) Feel like I'm a different person.	18.49	.0001
6) Imaginary friends talk to me or comment on things that I'm doing or thinking.	13.78	.0002
7) Difficulty concentrating or paying attention.	17.70	.0001
8) Nightmares or other sleep problems.	5.77	.0163
10) Sudden mood changes going from very happy to very sad or very sad to very happy for no apparent reason.	13.02	.0003
11) Unhappy, sad or depressed.	16.20	.0001
12) Inconsistent school performance, making good grades on some days and poor grades on other days.	6.48	.0109

(table con'd.)

Item	Chi Square	Sign. Level
13) Think about hurting myself.	6.08	.0137
14) Deliberately cut or physically harm myself.	9.17	.0025
15) Been told I did things that I don't remember doing.	25.34	.0001
16) Wish I were dead or never been born.	14.69	.0001
17) Feel as though I'm watching myself from outside of my body even though I'm awake.	15.69	.0001
18) Feel empty inside.	16.18	.0001
19) Don't seem to feel the same emotions as others do.	21.98	.0001
20) Accused of lying when I don't think that I did.	26.65	.0001
21) Feel that things around me are not real.	21.99	.0001
22) Feel that my body is not part of me.	17.68	.0001
23) Remember something that happened before so clearly that it feels like its happening again.	26.46	.0001
24) Not knowing whether something was a dream or if it really happened.	18.84	.0001
25) Be in a place I know well but feel like I've never been there before.	26.34	.0001
26) Have daydreams that seem like they are really happening.	12.74	.0004

(table con'd.)

Item	Chi Square	Sign. Level
27) Become so interested in a movie that I don't know what else is going on around me.	12.91	.0003
28) Ignore or not feel physical pain.	7.19	.0073
29) Ignore or not feel emotional pain.	6.93	.0085
30) Talk out loud to myself when alone.	10.46	.0012
31) Unaware of my feelings.	4.14	.0418
32) Some days behave so differently than usual it's like I'm two totally different people.	25.06	.0001
33) Find things that I've written that I don't remember writing.	22.96	.0001
34) My mind suddenly goes blank.	21.20	.0001
35) Feel as though I am not real.	13.00	.0003
36) Don't seem to have the same feelings as others.	19.96	.0001
37) Feel as though I'm being controlled by someone else.	24.26	.0001
38) hear voices talking to me that others can't hear.	17.20	.0001
39) Complete tasks easily some days but find the same things very difficult on other days.	25.02	.0001

(table con'd.)

Item	Chi Square	Sign. Level
40) Feel like a different person and want to be called by a different name.	17.62	.0001
41) Feel disconnected or checked-out.	8.55	.0034
42) Don't seem to have any feelings.	2.70	.1005
43) Feel numb.	8.98	.0027
44) Suddenly find myself in a place and don't remember how I got there.	24.17	.0001
45) Have blank spells where I lose time and don't know what happened.	23.62	.0001
46) Have large gaps in my memory of the past.	12.73	.0004
47) Listen to someone talk and realize I did not hear part or all of what the person said.	15.70	.0001
48) Find myself in clothes that I don't remember putting on.	15.18	.0001
49) Get teased for acting really immature.	15.73	.0001
50) Hear voices having conversations in my head.	12.64	.0004

Table 5

Classification Summary Table

Classification by Dissociation Status -- ADS			
Group	n	Predicted Group Membership	
		1	2
Low Dissociators	27	27 (100%)	0
High Dissociators	21	3 (14%)	18 (86%)
Percent of "Grouped" Cases Correctly Classified:			94%

Discussion

The purpose of the present study was to develop and initially validate a self-report screening measure for adolescent dissociative experiences. Due to the sparse existing literature on adolescent and child dissociation, an existing scale of adolescent dissociation was not available. An adult measure, (i.e., DES) that has been used with adolescent populations was utilized to study the preliminary validity of The Adolescent Dissociation Scale (ADS). The ADS was refined into a 49-item, empirically derived, self-report scale designed as a research, screening measure to determine the degree of dissociative symptoms in the general population as compared to clinical subjects. Because this is a preliminary study, all measures were empirically examined.

The readability of the ADS was found to be below the grade level of the adolescent sample, supporting the use of this scale with subjects between 12 and 18 years old. Furthermore, the content of the ADS was tailored to adolescent dissociative symptoms rather than those of adults, supporting the content validity of this new measure.

Results obtained suggest that the ADS is a reliable, highly internally consistent measure. The DES was also found to be internally consistent with this adolescent sample. The interview, the M-CISDE, and the proposed Dissociation/PTSD scale of the YSR also were found to have adequate internal consistency.

The dispersion of scores on the ADS was skewed, with the majority of subjects reporting low incidences of dissociative experiences. However, some high scores were found within the sample of non-referred teenagers, confirming that pathological dissociation may be under-identified. Similarly, scores on the DES were comparable to those found in other adolescent studies, finding a non-normal, positively skewed distribution (Ross, et al, 1989; Sanders & Giolas, 1991).

In order to establish the initial construct validity of the ADS, differences across demographic groups were assessed. Demographic differences were not found for the ADS. Gender, age, race and level of socioeconomic status were not significant, These results are consistent with the existing literature which suggests adolescent males and females report similar rates of dissociative experiences (Sander, et al., 1991).

Comparable to the present study, other studies of adolescents and adults have found that race and SES are unrelated to dissociation (Bernstein, 1986; Sanders, et al, 1989, 1991; Ross, et al, 1989). However, age has been identified as a covariate to dissociation scores (Ross et al, 1989). It has been theorized that dissociative experiences peak during adolescence and decline with age. In the present study only the adolescent age group was studied, and perhaps the age range was too small to detect differences.

Validity of the ADS was somewhat supported by the strong relationship between ADS total scores and other measures of dissociation. The ADS significantly correlated with the DES and the Diss/PTSD scale of the YSR. Higher scores on the ADS were associated with greater reports of dissociative experiences on the DES and endorsement of items purported to relate to dissociation on the Diss/PTSD scale of the YSR.

Further validity could possibly be suggested by the ADS statistically correlating with measures of stress and trauma which theoretically are precursors to dissociation (Kluft, 1985). Stress as a child was positively related to ADS scores. Subjects reporting higher levels of stress

during childhood and/or during adolescence, tended to endorse more ADS items. Higher scores on the CATQ also were associated with higher ADS scores indicating the greater perceived abuse or trauma as a child, the more dissociative experiences as an adolescent. Similar findings resulted with the DES. These correlations replicated the findings of Sanders et al, (1989).

The ADS individual items and total score were found to discriminate adolescents based on dissociative status. Chi Square revealed significant differences between the high and low dissociator groups on all of the individual items of the ADS with the exception of one item (i.e., Don't seem to have any feelings). Total score on the ADS also was able to differentiate the two groups.

Discriminant analyses were utilized to further examine the discriminant validity of the ADS. The ADS correctly classified 94% of the subjects based upon high or low dissociator groups. The ADS was found to be a very conservative estimate in that the rate of false positives was zero as compared to 14% of false negatives.

The utility of the ADS as a screening measure to quickly identify high dissociators warrants further intensive assessment. With a more empirically driven

method of assessment, adolescents in need of treatment can be identified earlier and provided therapy. The research literature suggests successful treatment of a dissociative disorder is more rapidly achieved with younger clients as opposed to the extensive treatment many adults require (Ross, 1989).

Limitations and Future Research

Despite the encouraging results of the present study, several limitations should be mentioned. The sample in this study was relatively, small and unrepresentative, all subjects being enlisted from a single geographic area. There is a need for a confirmatory study with a large representative normative sample to replicate the findings.

In addition, an extensive stability study is needed to judge the stability of the ADS over time. Future studies which include multiple informants of adolescent behavior, such as parent, teacher or therapist reports, would allow for more rigorous validation of the ADS. However, at the present time, reliable and valid measures of other's reports of adolescent dissociative symptoms are not available.

The strongest test of the utility of the ADS will be its ability to discriminate subjects with the diagnosis of

a dissociative disorder which is based on multiple methods of assessment. Once this is established, other studies can investigate the role of adolescent dissociation in other psychiatric populations such as eating disorders, sexually abused, etc. The ability of the ADS to differentiate dissociative disordered subjects from other psychopathologies would support the validity of this scale.

Future research should also explore the sensitivity of ADS to treatment and to the design of effective treatment plans. Once psychometrically sound, valid measures of adolescent dissociation are well established, longitudinal studies can be undertaken to examine the developmental course of dissociation and study changes from adolescence to adulthood.

The present study was a first attempt at developing a means for measuring adolescent dissociation in the normal population, as well as identifying high levels of dissociation. Further investigation is warranted and supported by these preliminary results.

References

Achenach, T. M., & Edelbrock, C. (1983). Manual for the Child Behavior Checklist and Revised Child Behavior Profile.Burlington: University of Vermont.

Achenbach, T. M., & Edelbrock, C. (1987). Manual Youth Self-Report and Profile. Burlington, VT University of Vermont, Department of Psychiatry.

Achenbach, T. M., & Edelbrock, C. (1991). Manual for the Youth Self-Report and Profile. Burlington, VT: University of Vermont, Department of Psychiatry.

American Psychiatric Association (1987). Diagnostic and Statistical Manual of Mental Disorders (3rd ed., rev.). Washington, D.C.: Author.

Bernstein, E. & Putnam, F. (1986). Development, reliability, and validity of a dissociation scale. The Journal of Nervous and Mental Disease, 174, 727-734.

Bowman, E. S. (1990). Adolescent multiple personality disorder in the nineteenth and early twentieth centuries. Dissociation, 3, 179-187.

Coons, P. M. (1984). The differential diagnosis of multiple personality disorder. Psychiatric Clinics of North America, 7, 51-68.

Dell, P. F., & Eisenhower, J. W. (1990). Adolescent multiple personality disorder: A preliminary study of eleven cases. Journal of the American Academy of Child and Adolescent Psychiatry, 29, 362-366.

Fagan, J., & McMahon, P.P. (1984). Incipient multiple personality in children: Four cases. Journal of Nervous and Mental Disease, 172, 26-36.

Frischholz, E, (1990). The dissociative Experiences scale: Further replication and validation. Dissociation, 3, 151-153.

Hilgard, E. R. (1977). Divided consciousness: Multiple controls in human thought and action. New York: Wiley-Interscience.

Hollingshead, A. R., & Redlich, F. C. (1957). Social class and mental illness. New York: John Wiley.

Kluft, R. P. (1984). Multiple personality in childhood. Psychiatric Clinics of North America, 7,121-134.

Kluft, R. P. (1985). The natural history of multiple personality disorder. In R.P. Kluft (Ed.). Childhood antecedents of multiple personality. Washington, D.C.: American Psychiatric Press.

Kluft, R. P. (1986). High functioning multiple personality patients: three cases. The Journal of Nervous and Mental Disease, 174, 722-726.

Liner, D. (1989). Child Interview for Subjective Dissociative Experiences scoring manual. Unpublished manuscript. Georgia State University, Atlanta, Georgia.

Malinosky-Rummell, R. R., & Hoier, T. (1991). Validating measures of dissociation in sexually abused and nonabused children. Behavioral Assessment, 13, 341-357.

Norton, G. R., Ross, C. A., & Novotny, M. F. (1990). Factors that predict scores on the dissociative experiences scale. Journal of Clinical Psychology, 46, 273-277.

Peterson, G. (1990). Diagnosis of childhood multiple personality disorder. Dissociation, 3, 3-9.

Putnam, F. W. (1985). Dissociation as a response to extreme trauma. In R. P. Kluft (Ed.), Childhood antecedents of multiple personality (pp.65-97). Washington, DC: American Psychiatric Association Press.

Putnam, F. W. (1988). Child Dissociative Checklist (Version 22). Unpublished manuscript. National Institute of Mental Health. Washington, D.C.

Putnam, F. W. (1989). Pierre Janet and modern views of dissociation. Journal of Traumatic Stress, 2, 413-429.

Putnam, F. W. (1991). Dissociative disorders in children and adolescents. A developmental perspective. Psychiatric Clinics of North America, 14, 519-531.

Reagor, P. A., Kasten, J. D., & Morelli, N. (1992). A checklist for screening dissociative disorders in children and adolescents. Dissociation, 5, 4-19.

Ross, C. A. (1989). Multiple personality disorder: Diagnosis, clinical features, and treatment. New York: Wiley.

Ross, C. A., Norton, G. R., & Wozney, K. (1989). Multiple personality disorder: An analysis of 236 cases. Canadian Journal of Psychiatry, 34, 413-418.

Ross, C. A., Ryan, L, Anderson, G., Ross, D., & Hardy, L. (1989). Dissociative experiences in adolescents and college students. Dissociation, 2, 239-242.

Sanders, B., & Giolas, M. H. (1991). Dissociation and childhood trauma in psychologically disturbed adolescents. American Journal of Psychiatry, 148, 50-54.

Sanders, B., McRoberts, G., & Tollefson, C. (1989). Childhood stress and dissociation in a college population. Dissociation, 2, 17-23.

Skinner, B. F. (1953). Science and Human Behavior. New York: Appleton-Century-Croft.

Spiegel, D. (1990). Hypnosis, dissociation, and trauma. In J. L. Singer (Ed.), Repression and Dissociation. Chicago: University of Chicago Press.

Steinberg, M., Rounsaville, B., & Cicchetti, D. (1991). Detection of dissociative disorders in psychiatric patients by a screening instrument and a structured diagnostic interview. American Journal of Psychiatry, 148, 1050-1054.

Tyson, G. M. (1992). Childhood multiple personality disorder/dissociative identity disorder: Applying and extending current diagnostic checklists. Dissociation, 5, 20-27.

van der Hart, O., Brown, P., & van der Kolk, B. A. (1989). Pierre Janet's treatment of post-traumatic stress. Journal of Traumatic Stress, 2, 379-395.

van der Hart, O., & Horst, R. (1989). The dissociation theory of Pierre Janet. Journal of Traumatic Stress, 2, 397-411.

van der Kolk, B. A., Brown, P., & van der Hart, O. (1989). Pierre Janet on Post-traumatic stress. Journal of Traumatic Stress, 2, 365-378.

Vincent, M., & Pickering, M. R. (1988). Multiple personality disorder in childhood. Canadian Journal of Psychiatry, 33, 524-529.

Wolfe, V. V., Gentile, C., & Wolfe, D. A. (1989). The impact of sexual abuse on children: A PTSD formulation. Behavior Therapy, 20, 215-228.

Appendix A

Adolescent Dissociation Scale

ADS

Circle the appropriate number that corresponds to how often you have the experiences described in each question below.

	EXPERIENCES	HOW OFTEN?			
		Not at all	Just a little	Pretty much	Very much
1)	Walk into a room and suddenly forget why I went in there.	0	1	2	3
2)	Feel like I'm in a daze or feel like I'm in another world.	0	1	2	3
3)	Listen to the radio and suddenly realize that I don't know what was just said.	0	1	2	3
4)	Get so involved with something that I lose track of time.	0	1	2	3
5)	Feel like I'm a different person.	0	1	2	3
6)	Imaginary friends talk to me or comment on things that I'm doing or thinking.	0	1	2	3
7)	Difficulty concentrating or paying attention.	0	1	2	3
8)	Nightmares or other sleep problems.	0	1	2	3
9)	Sleepwalk.	0	1	2	3
10)	Sudden mood changes going from very happy to very sad or very sad to very happy for no apparent reason.	0	1	2	3
11)	Unhappy, sad or depressed.	0	1	2	3
12)	Inconsistent school performance, making good grades on some days and poor grades on other days.	0	1	2	3

EXPERIENCES	HOW OFTEN?			
	Not at all	Just a little	Pretty much	Very much
13) Think about hurting myself.	0	1	2	3
14) Deliberately cut or physically harm myself.	0	1	2	3
15) Been told I did things that I don't remember doing.	0	1	2	3
16) Wish I were dead or never been born.	0	1	2	3
17) Feel as though I'm watching myself from outside of my body even though I'm awake.	0	1	2	3
18) Feel empty inside.	0	1	2	3
19) Don't seem to feel the same emotions as others do.	0	1	2	3
20) Accused of lying when I don't think that I did.	0	1	2	3
21) Feel that things around me are not real.	0	1	2	3
22) Feel that my body is not part of me.	0	1	2	3
23) Remember something that happened before so clearly that it feels like its happening again.	0	1	2	3
24) Not knowing whether something was a dream or if it really happened.	0	1	2	3
25) Be in a place I know well but feel like I've never been there before.	0	1	2	3
26) Have daydreams that seem like they are really happening.	0	1	2	3
27) Become so interested in a movie that I don't know what else is going on around me.	0	1	2	3

EXPERIENCES	HOW OFTEN?			
	Not at all	Just a little	Pretty much	Very much
28) Ignore or not feel physical pain.	0	1	2	3
29) Ignore or not feel emotional pain.	0	1	2	3
30) Talk out loud to myself when alone.	0	1	2	3
31) Unaware of my feelings.	0	1	2	3
32) Some days behave so differently than usual it's like I'm two totally different people.	0	1	2	3
33) Find things that I've written that I don't remember writing.	0	1	2	3
34) My mind suddenly goes blank.	0	1	2	3
35) Feel as though I am not real.	0	1	2	3
36) Don't seem to have the same feelings as others.	0	1	2	3
37) Feel as though I'm being controlled by someone else.	0	1	2	3
38) hear voices talking to me that others can't hear.	0	1	2	3
39) Complete tasks easily some days but find the same things very difficult on other days.	0	1	2	3
40) Feel like a different person and want to be called by a different name.	0	1	2	3
41) Feel disconnected or checked-out.	0	1	2	3
42) Don't seem to have any feelings.	0	1	2	3
43) Feel numb.	0	1	2	3

EXPERIENCES	HOW OFTEN?			
	Not at all	Just a little	Pretty much	Very much
44) Suddenly find myself in a place and don't remember how I got there.	0	1	2	3
45) Have blank spells where I lose time and don't know what happened.	0	1	2	3
46) Have large gaps in my memory of the past.	0	1	2	3
47) Listen to someone talk and realize I did not hear part or all of what the person said.	0	1	2	3
48) Find myself in clothes that I don't remember putting on.	0	1	2	3
49) Get teased for acting really immature.	0	1	2	3
50) Hear voices having conversations in my head.	0	1	2	3

Appendix B

Consent Form A

LSU CONSENT FORM

A research study is being conducted by the LSU Department of Psychology under the supervision of Dr. Mary Lou Kelley and Joseph C. Witt. The purpose of the study is to learn more about experiences of teenagers.

Teenagers must be between the ages of 12 and 18 years old.
Teenagers will be asked to complete various questionnaires. A separate short interview will be conducted which will be audiotaped. The entire project will take approximately 45 minutes to one hour. **ALL INFORMATION IS CONFIDENTIAL AND WILL NOT BE SHOWN TO ANYONE ELSE.** You will be specifically instructed **NOT** to write your name on any questionnaire; therefore, no one, including the researchers, will know your answers. Some of the questions on the paper and pencil measures inquire about discipline practices in the home and sexual experiences of the teenager. No attempt will be made to determine the identity of the teenager.

Participating in the study is voluntary. This means that you do not have to participate in the study if you do not want to. You may withdraw your participation at any time and do not have to answer any questions that may make you uncomfortable.

If you agree to participate, please sign your name. Both parent and teenager must sign the consent form before the teenager completes the questionnaires. This consent form will be detached from your answers immediately upon return to us; therefore, your signature will not be identified with your responses.

_____ **I agree to participate.**

TEENAGER SIGNATURE:_____

_____ **I agree to allow my teenager to participate.**

PARENT/GUARDIAN SIGNATURE:_____

Thank you for your participation.

Appendix C

Consent Form B

LSU CONSENT FORM

A research study is being conducted by the LSU Department of Psychology under the supervision of Dr. Mary Lou Kelley. The purpose of the study is to learn more about experiences of teenagers.

Teenagers must be between the ages of 12 and 18 years old.
Teenagers will be asked to complete various questionnaires. This will take approximately 30 minutes. **ALL INFORMATION IS CONFIDENTIAL AND WILL NOT BE SHOWN TO ANYONE ELSE.** You will be specifically instructed **NOT** to write your name on any questionnaire; therefore, no one, including the researchers, will know your answers.

Participating in the study is voluntary. This means that you do not have to participate in the study if you do not want to. You may withdraw your participation at any time.

If you agree to participate, please sign your name. This consent form will be detached from your answers immediately upon return to us; therefore, your signature will not be identified with your responses.

_____ **I agree to allow my child to participate.**

PARENT SIGNATURE:_____

_____ **I agree to participate.**

TEENAGER SIGNATURE: _____

Thank you for your participation.

Appendix D

Demographic Questionnaire

DEMOGRAPHIC QUESTIONNAIRE (PLEASE PRINT)

*****DO NOT WRITE YOUR NAME ON ANY OF THESE QUESTIONNAIRES. ALL ANSWERS WILL REMAIN STRICTLY CONFIDENTIAL AND NO ATTEMPT WILL BE MADE TO DETERMINE YOUR IDENTITY.**

Please complete all questions:

1. Your Age: _____ 2. Your Grade: _____

3. Male:_____ or Female:_____

4. Parent's Marital Status: Married____ Single____

Separated____ Divorced____ Remarried____

5. Your Race: Black____ White____ Oriental____ Other____

6. Your Father's Occupation:_____

7. Your Father's Highest Education Level: (Check one)

____Elementary ____Junior High
____High School (some) ____High School Graduate
____Some College ____College Graduate
____Graduate School (e.g., Law School) ____Trade School

8. Your Mother's Occupation _____

9. Your Mother's Highest Education Level: (Check one)

____Elementary ____Junior High
____Some High School ____High School Graduate
____Some College ____College Graduate
____Graduate School (e.g., Law School) ____Trade School

10. Grades on Your Last Report Card:

Science _____ Social Studies _____

English_____ Math_____

11. How stressful was your childhood? (pick one)

Very Stressful____
Somewhat Stressful____
A little Stressful____

12. How stressful is your adolescence? (pick one)

Very Stressful_____
Somewhat Stressful_____
A little stressful_____

13. Have you ever received any psychological or counseling services? Yes____ or No____

If Yes: When?_____

For what?_____

14. Have you ever been SUSPENDED from school (including in-school suspansions)? Yes____ or No____

If Yes: How many times____.

15. Have you ever been EXPELLED from school? Yes____ or No____

If Yes: How many times? ____

Appendix E

Dissociative Experiences Scale

DES

Eve Bernstein Carlson, Ph. D. Frank W. Putnam, M. D.

DIRECTIONS

This questionnaire consists of twenty-eight questions about experiences that you may have in your daily life. We are interested in how often you have these experiences. It is important, however, that your answers show how often these experiences happen to you when you are not under the influence of alcohol or drugs. To answer the questions, please determine to what degree the experience described in the question applies to you and mark the line with a vertical slash at the appropriate place, as shown in the example below.

Example:

0% |----------/----------| 100%

Date _____ Age _____ Sex: M F _____

1. Some people have the experience of driving a car and suddenly realizing that they don't remember what has happened during all or part of the trip. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

2. Some people find that sometimes they are listening to someone talk and they suddenly realize that they did not hear part or all of what was said. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

3. Some people have the experience of finding themselves in a place and having no idea how they got there. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

4. Some people have the experience of finding themselves dressed in clothes that they don't remember putting on. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

5. Some people have the experience of finding new things among their belongings that they do not remember buying. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

6. Some people sometimes find that they are approached by people that they do not know who call them by another name or insist that they have met them before. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

7. Some people sometimes have the experience of feeling as though they are standing next to themselves or watching themselves do something and they actually see themselves as if they were looking at another person. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

8. Some people are told that they sometimes do not recognize friends or family members. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

9. Some people find that they have no memory for some important events in their lives (for example, a wedding or graduation). Mark the line to show what percentage of the important events in your life you have no memory for.

0% |----------| 100%

10. Some people have the experience of being accused of lying when they do not think that they have lied. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

11. Some people have the experience of looking in a mirror and not recognizing themselves. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

12. Some people have the experience of feeling that other people, objects, and the world around them are not real. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

13. Some people have the experience of feeling that their body does not seem to belong to them. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

14. Some people have the experience of sometimes remembering a past event so vividly that they feel as if they were reliving that event. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

15. Some people have the experience of not being sure whether things that they remember happening really did happen or whether they just dreamed them. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

16. Some people have the experience of being in a familiar place but finding it strange and unfamiliar. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

17. Some people find that when they are watching television or a movie they become so absorbed in the story that they are unaware of other events happening around them. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

18. Some people find that they become so involved in a fantasy or daydream that it feels as though it were really happening to them. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

19. Some people find that they sometimes are able to ignore pain. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

20. Some people find that that they sometimes sit staring off into space, thinking of nothing, and are not aware of the passage of time. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

21. Some people sometimes find that when they are alone they talk out loud to themselves. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

22. Some people find that in one situation they may act so differently compared with another situation that they feel almost as if they were two different people. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

23. Some people sometimes find that in certain situations they are able to do things with amazing ease and spontaneity that would usually be difficult for them (for example, sports, work, social situations, etc.). Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

24. Some people sometimes find that they cannot remember whether they have done something or have just thought about doing that this (for example, not knowing whether they have just mailed a letter of have just thought about mailing it) Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

25. Some people find evidence that they have done things that they do not remember doing. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

26. Some people sometimes find writings, drawings, or notes among their belongings that they must have done but cannot remember doing. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

27. Some people sometimes find that they hear voices inside their head that tell them to do things or comment on things that they are doing. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

28. Some people sometimes feel as if they are looking at the world through a fog so that people and objects appear far away or unclear. Mark the line to show what percentage of the time this happens to you.

0% |----------| 100%

Appendix F

Child Behavior Checklist-Youth Self-Report

Below is a list of items that describe kids. For each item that describes you now or within the past 6 months, please circle the 2 if the item is very true or often true of you. Circle the 1 if the item is somewhat or sometimes true of you. If the item is not true of you, circle the 0.

0 = Not True 1 = Somewhat or Sometimes True 2 = Very True or Often True

0	1	2	1.	I act too young for my age
0	1	2	2.	I have an allergy (describe): _____
0	1	2	3.	I argue a lot
0	1	2	4.	I have asthma
0	1	2	5.	I act like the opposite sex
0	1	2	6.	I like animals
0	1	2	7.	I brag
0	1	2	8.	I have trouble concentrating or paying attention
0	1	2	9.	I can't get my mind off certain thoughts (describe): _____
0	1	2	10.	I have trouble sitting still
0	1	2	11.	I'm too dependent on adults
0	1	2	12.	I feel lonely
0	1	2	13.	I feel confused or in a fog
0	1	2	14.	I cry a lot
0	1	2	15.	I am pretty honest
0	1	2	16.	I am mean to others
0	1	2	17.	I daydream a lot
0	1	2	18.	I deliberately try to hurt or kill myself
0	1	2	19.	I try to get a lot of attention
0	1	2	20.	I destroy my own things
0	1	2	21.	I destroy things belonging to others
0	1	2	22.	I disobey my parents
0	1	2	23.	I disobey at school
0	1	2	24.	I don't eat as well as I should
0	1	2	25.	I don't get along with other kids
0	1	2	26.	I don't feel guilty after doing something I shouldn't
0	1	2	27.	I am jealous of others
0	1	2	28.	I am willing to help others when they need help
0	1	2	29.	I am afraid of certain animals, situations, or places, other than school (describe): _____
0	1	2	30.	I am afraid of going to school
0	1	2	31.	I am afraid I might think or do something bad
0	1	2	32.	I feel that I have to be perfect
0	1	2	33.	I feel that no one loves me
0	1	2	34.	I feel that others are out to get me
0	1	2	35.	I feel worthless or inferior
0	1	2	36.	I accidentally get hurt a lot
0	1	2	37.	I get in many fights
0	1	2	38.	I get teased a lot
0	1	2	39.	I hang around with kids who get in trouble
0	1	2	40.	I hear sounds or voices that other people think aren't there (describe): _____
0	1	2	41.	I act without stopping to think
0	1	2	42.	I would rather be alone than with others
0	1	2	43.	I lie or cheat
0	1	2	44.	I bite my fingernails
0	1	2	45.	I am nervous or tense
0	1	2	46.	Parts of my body twitch or make nervous movements (describe): _____
0	1	2	47.	I have nightmares
0	1	2	48.	I am not liked by other kids
0	1	2	49.	I can do certain things better than most kids
0	1	2	50.	I am too fearful or anxious
0	1	2	51.	I feel dizzy
0	1	2	52.	I feel too guilty
0	1	2	53.	I eat too much
0	1	2	54.	I feel overtired
0	1	2	55.	I am overweight
			56.	Physical problems without known medical cause:
0	1	2		a. Aches or pains (not headaches)
0	1	2		b. Headaches
0	1	2		c. Nausea, feel sick
0	1	2		d. Problems with eyes (describe): _____
0	1	2		e. Rashes or other skin problems
0	1	2		f. Stomachaches or cramps
0	1	2		g. Vomiting, throwing up
0	1	2		h. Other (describe): _____
0	1	2	57.	I physically attack people
0	1	2	58.	I pick my skin or other parts of my body (describe): _____
0	1	2	59.	I can be pretty friendly
0	1	2	60.	I like to try new things
0	1	2	61.	My school work is poor
0	1	2	62.	I am poorly coordinated or clumsy
0	1	2	63.	I would rather be with older kids than with kids my own age

Please see other side

0 = Not True 1 = Somewhat or Sometimes True 2 = Very True or Often True

0	1	2	64.	I would rather be with younger kids than with kids my own age
0	1	2	65.	I refuse to talk
0	1	2	66.	I repeat certain actions over and over (describe): _____
0	1	2	67.	I run away from home
0	1	2	68.	I scream a lot
0	1	2	69.	I am secretive or keep things to myself
0	1	2	70.	I see things that other people think aren't there (describe): _____
0	1	2	71.	I am self-conscious or easily embarrassed
0	1	2	72.	I set fires
0	1	2	73.	I can work well with my hands
0	1	2	74.	I show off or clown
0	1	2	75.	I am shy
0	1	2	76.	I sleep less than most kids
0	1	2	77.	I sleep more than most kids during day and/or night (describe): _____
0	1	2	78.	I have a good imagination
0	1	2	79.	I have a speech problem (describe): _____
0	1	2	80.	I stand up for my rights
0	1	2	81.	I steal at home
0	1	2	82.	I steal from places other than home
0	1	2	83.	I store up things I don't need (describe): _____
0	1	2	84.	I do things other people think are strange (describe): _____
0	1	2	85.	I have thoughts that other people would think are strange (describe): _____
0	1	2	86.	I am stubborn
0	1	2	87.	My moods or feelings change suddenly
0	1	2	88.	I enjoy being with other people
0	1	2	89.	I am suspicious
0	1	2	90.	I swear or use dirty language
0	1	2	91.	I think about killing myself
0	1	2	92.	I like to make others laugh
0	1	2	93.	I talk too much
0	1	2	94.	I tease others a lot
0	1	2	95.	I have a hot temper
0	1	2	96.	I think about sex too much
0	1	2	97.	I threaten to hurt people
0	1	2	98.	I like to help others
0	1	2	99.	I am too concerned about being neat or clean
0	1	2	100.	I have trouble sleeping (describe): _____
0	1	2	101.	I cut classes or skip school
0	1	2	102.	I don't have much energy
0	1	2	103.	I am unhappy, sad, or depressed
0	1	2	104.	I am louder than other kids
0	1	2	105.	I use alcohol or drugs for nonmedical purposes (describe): _____
0	1	2	106.	I try to be fair to others
0	1	2	107.	I enjoy a good joke
0	1	2	108.	I like to take life easy
0	1	2	109.	I try to help other people when I can
0	1	2	110.	I wish I were of the opposite sex
0	1	2	111.	I keep from getting involved with others
0	1	2	112.	I worry a lot

Please write down anything else that describes your feelings, behavior, or interests

PLEASE BE SURE YOU HAVE ANSWERED ALL ITEMS

Appendix G

Proposed Dissociation/PTSD Scale of the YSR

3. Argue a lot

8. Trouble concentrating or paying attention

9. Can't get mind off certain thoughts

11. Too dependent on adults

13. Feel confused or in a fog

17. Daydream a lot

29. Afraid of situations, etc.

31. Afraid might think or do something bad

34. Feel others are out to get me

42. Rather be alone

45. Nervous or tense

47. Have nightmares

50. Too fearful or anxious

52. Feel too guilty

56B. Headaches

56C. Nausea

56F. Stomachaches

56G. Vomiting

69. Secretive

87. Moods or feelings change suddenly

100. Trouble sleeping

Appendix H

M-Child Interview for Subjective Dissociative Experiences

Modified Child Interview for Subjective Dissociative Experiences (Original by Liner, 1989).

INSTRUCTIONS TO BE READ TO THE ADOLESCENT:

I'M GOING TO DESCRIBE SEVERAL DIFFERENT FEELINGS AND EXPERIENCES THAT SOME CHILDREN MAY HAVE IN THEIR LIVES. I'D LIKE YOU TO TELL ME WHETHER OR NOT YOU HAVE HAD SIMILAR KINDS OF FEELINGS AND EXPERIENCES.

1. Some teenagers get punished for doing things that they feel certain they did not do. For example, a mother or father may accuse a child of breaking something at home, but the teenager truly does not remember doing it.

   Do you ever feel that you get punished for things that you did not do?

   Yes_____ No_____

   If Yes: How often does this happen?
   very little_____ sometimes_____ often_____

   Please describe some times in which this has happened to you.

2. Some teenagers have special friends whom only they can see and hear. They may play with these friends, talk to them, or take the friends along with them. Some people describe these friends as pretend or make-believe, while others feel that they are very real.

   Do you have special friends whom only you can see or hear?

   Yes_____ No_____

**** If Yes: How many of these friends do you have? _____

   Please describe them to me.

   Are they people, animals or some other object or being?

   How much time do you spend with them?
   very little_____ some_____ a lot of the time_____

   When do they come out, or when do you play with them? (When alone or with other people?)

   Do you feel that they are pretend or real?

   When did you start having these friends?

**** If No: When you were younger, did you ever have special friends like these, whom only you could see or hear?
Yes____ or No____

If yes: How many of these friends did you have?

Please describe them to me.

Were they people, animals or some other object or being?

How much time did you spend with them?
very little_____ some_____ a lot of the time_____

When did they come out, or when did you play with them? (When alone or with other people?)

Did you feel that they were pretend or real?

When did you start having these friends?

3. Some teenagers, at times, find that they are in a place but have no idea how they got there. For example, a student may open up his/her eyes to find that he/she is in school, sitting in a classroom. The teenager feels confused because it seems likes s/he just appeared there. The teen doesn't remember going to school, doesn't know how s/he got there, and has no idea what's been going on in the classroom.

Do you ever find that you're in a place, but do not know how you got there?
Yes_____ or No_____

If yes: How often does this happen?
very little_____ sometimes_____ often_____

Please tell me about some times in which this has happened to you.

4. Some teenagers feel that they get accused of lying when they believe they are telling the truth.

Do you ever feel that you are accused of lying when you feel you are telling the truth?
Yes_____ or No_____
If Yes: How often does this happen?
very little_____ sometimes_____ often_____

Please tell me about some times in which this has happened to you. Who are the people that accuse you of lying (family members, teachers, friends, strangers)?

5. Some teenagers, when they feel bad or get scared, pretend or make-believe that they are somewhere else. Or they may pretend that the scary thing is not really happening to them, but to someone else, like another child or teenager.

Do you ever pretend these things when you get scared or feel bad?
Yes____ or No____
If Yes: How often do you do this?
very little____ sometimes____ or often____

Please tell me more about this. What kinds of things do you pretend? When do you pretend these things?

6. Some teenagers hear voices inside their head that nobody else can hear. The voices may talk to the teenager, explaining things or telling him/her what to do. Or the teen may hear several voices talking to each other, like they're having a conversation.

Do you ever hear voices inside of your head that no one else can hear? yes____ or no____

If Yes: How often does this happen?
very little_____ sometimes_____ or often_____

Please tell me about these voices.

Are they inside of your head or outside of your head?
To whom do they belong?
What kinds of things do they say?
When did you first start hearing them?
When do you tend to hear them?

7. Some teenagers have the feeling that they are being controlled by someone else: that they are made to do or say things that they do not want to do, as if they were a puppet or robot.

Have you ever felt that you were being controlled by someone else? Yes_____ or No_____
If Yes: How often do you feel this way?
very little_____ sometimes_____ often_____

Please tell me more about it.

When have you felt this way?
Who did you feel was controlling you?

8. Some teenagers sometimes have the experience of going somewhere, like riding in a car or train or taking a walk, and all of a sudden they can't remember what has happened during all or part of the trip.

Does this ever happen to you?
Yes_____ or No_____
If Yes: How often does this happen?
very little_____ sometimes_____ often_____
Please describe some times in which you couldn't remember what happened during a trip.

9. Some people sometimes find that they are listening to someone talk and suddenly they realize that they did not hear part or all of what the person was saying.
Does this ever happen to you? Do you ever listen to someone talk but not hear what the person is saying?
Yes_____ or No_____
If Yes: How often does this happen?
very little_____ sometimes_____ often_____
Please describe some times in which you did not hear what someone was saying.

10. Some teenagers sometimes are not sure if things they remember really happened or whether they just dreamed them. Or they might find it hard to tell if something really happened or if they just made it up.

Do you ever feel that you are not sure if something really happened or if you just dreamed it?
Yes_____ or No_____
If yes: How often do you feel this way?
very little_____ sometimes_____ often_____
Please tell me about some times in which you have felt this way.

11. Some teenagers sometimes feel that they try to do something, like working a math problem or riding a bike, and it is very easy to do; but other times they try to do the very same thing and it feels very difficult to do.

Do you ever feel that sometimes something is very easy for you to do and other times that same thing is very difficult for you to do?
Yes_____ or No_____
If yes: How often does this happen?
very little_____ sometimes_____ often_____

Please describe some times in which this has happened to you.

12. Sometimes a teenager may act in such very different ways that the child feels that s/he is two different people, instead of just one person.

Do you ever feel that you act in such different ways that you are two different people?
Yes_____ or No_____
If Yes: How often do you feel this way?
very little_____ sometimes_____ often_____

Please tell me about some times in which you have felt this way.

13. Some teenagers find that they can ignore pain. Like if they get hurt, they don't feel the pain or they pretend the pain is not there.

Are there times when you get hurt but do not feel the pain?
Yes_____ or No_____
If Yes: How often does this happen?
very little_____ sometimes_____ often_____

Please tell me about some times in which you have gotten hurt but have not felt the pain.

14. Some teenagers sometimes feel that others tease them or make fun of them for acting like a baby.

Do you ever feel that others tease you for acting immature, like a baby?
Yes_____ or No_____
If yes: How often does this happen?
very little_____ sometimes_____ often_____
Please tell me about some times in which this has happened to you.

15. Are there large parts of your childhood after age 5 which you cannot remember?
Yes_____ No_____

If yes: Please tell more about these memory losses.

16. Do people ever tell you about thing you've done or said, that you can't remember, (not counting times when you have been using drugs or alcohol)?
Yes_____ No_____

If Yes: How often does this happen?
very little_____ sometimes_____ often_____

Please tell me more about these experiences.

17. Do you ever have blank spells or periods of missing time that you can't remember (when sober)?
Yes_____ No_____

If Yes: How often does this happen?
very little_____ sometimes_____ often_____

Please tell me more about these experiences.

18. Do you ever have memories come back to you all of a sudden in a flood like flashbacks?
Yes_____ No_____

If Yes: How often does this happen?
very little_____ sometimes_____ often_____

Please tell me more about these experiences.

19. Do you ever have long periods when you feel unreal, as if in a dream, or as if your not really there (when sober)?
Yes_____ No_____

If Yes: How often does this happen?
very little_____ sometimes_____ often_____

Please tell me more about these experiences.

20. Do you ever feel that there is another person or persons inside of you?
Yes_____ No_____

If yes, does that person or persons inside of you have a name?
Yes_____ No_____

If there is another person inside of you, does he or she ever come out and take control of your body?
Yes_____ No_____

Please tell me more about feeling that there is another person or persons inside of you.

21. Have you ever had the feelings that your feet and hands or other parts of your body have changed in size?
Yes_____ No_____

If yes: How often does this happen?
very little_____ sometimes_____ often_____

Please tell me more about these feelings.

22. Have you ever experienced seeing yourself from outside of your body (when awake and sober)?
Yes_____ No_____

If Yes: How often does this happen?
very little_____ sometimes_____ often_____

Please tell me more about these experiences.

23. Have you ever had a strong feeling of unreality that lasted for a period of time (when sober)?
Yes_____ No_____

If Yes: How often does this happen?
very little_____ sometimes_____ often_____

Please tell me more about these feelings of unreality.

Appendix I

Child Abuse and Trauma Questionnaire

HOME ENVIRONMENT SCALE

This questionnaire seeks to determine the general atmosphere of your home when you were a child or teenager and how you felt you were treated by your parents or principal caretakers. (If you were not raised by one or both of your biological parents, please respond to the questions below in terms of the person or persons who had the primary responsibility for your upbringing as a child.) Where a question inquires about the behavior of both of your parents and your parents differed in their behavior, please respond in terms of the parent whose behavior was the more severe or worse.

In responding to these questions, simply circle the appropriate number according to the following definitions:

0 = Never
1 = Rarely
2 = sometimes
3 = very often
4 = always

To illustrate, here is a hypothetical question:

Did your parents criticize you when you were young? 0 1 2 3 4
If you were rarely critized, you should circle number 1.

Please answer all the questions.

1. Did your parents ridicule you? 0 1 2 3 4

2. Did you ever seek outside help or guidance because of problems in your home? 0 1 2 3 4

3. Did your parents verbally abuse each other? 0 1 2 3 4

4. Were you expected to follow a strict code of behavior in your home? 0 1 2 3 4

5. When you were punished as a child or teenager, did you understand the reason you were punished? 0 1 2 3 4

6. When you didn't follow the rules of the house, how often were you severely punished? 0 1 2 3 4

7. As a child did you feel unwanted or emotionally neglected? 0 1 2 3 4

8. Did your parents insult you or call you names? 0 1 2 3 4

9. Before you were 14, did you engage in any sexual activities with an adult? 0 1 2 3 4

10. Were your parents unhappy with each other? 0 1 2 3 4

0 = Never
1 = Rarely
2 = sometimes
3 = very often
4 = always

11. Were your parents unwilling to attend any of your school-related activities? 0 1 2 3 4

12. As a child were you punished in unusual ways (for example being locked in a closet for a long time or being tied up)? 0 1 2 3 4

13. Were there traumatic or upsetting sexual experiences when you were a child or teenager that you couldn't speak to adults about? 0 1 2 3 4

14. Did you ever think you wanted to leave your family and live with another family? 0 1 2 3 4

15. Did you ever witness the sexual mistreatment of another family member? 0 1 2 3 4

16. Did you ever think seriously about running away from home? 0 1 2 3 4

17. Did you witness the physical mistreatment of another family member? 0 1 2 3 4

18. When you were punished as a child or teenager, did you feel the punishment was deserved? 0 1 2 3 4

19. As a child or teenager, did you feel disliked by either of your parents? 0 1 2 3 4

20. How often did your parents get really angry with you? 0 1 2 3 4

21. As a child did you feel that your home was charged with the possibility of unpredictable physical violence? 0 1 2 3 4

22. Did you feel comfortable bringing friends home to visit? 0 1 2 3 4

23. Did you feel safe living at home? 0 1 2 3 4

24. When you were punished as a child or teenager, did you feel "the punishment fit the crime"? 0 1 2 3 4

25. Did your parents ever verbally lash out at you when you did not expect it? 0 1 2 3 4

0 = Never
1 = Rarely
2 = sometimes
3 = very often
4 = always

26.	Did you have traumatic sexual experiences as a child or teenager?	0 1 2 3 4
27.	Were you lonely as a child?	0 1 2 3 4
28.	Did your parents yell at you?	0 1 2 3 4
29.	When either of your parents was intoxicated, were you ever afraid of being sexually mistreated?	0 1 2 3 4
30.	Did you ever wish for a friend to share your life?	0 1 2 3 4
31.	How often were you left at home alone as a child?	0 1 2 3 4
32.	Did your parents blame you for things you didn't do?	0 1 2 3 4
33.	To what extend did either of your parents drink heavily or abuse drugs?	0 1 2 3 4
34.	Did your parents ever hit or beat you when you did not expect it?	0 1 2 3 4
35.	Did your relationship with your parents ever involve a sexual experience?	0 1 2 3 4
36.	As a child, did you have to take care of yourself before you were old enough?	0 1 2 3 4
37.	Were you physically mistreated as a child or teenager?	0 1 2 3 4
38.	Was your childhood stressful?	0 1 2 3 4

Appendix J

Debriefing Statement

DEBRIEFING STATEMENT

The study you just participated in involves how adolescents feel about themselves and what experiences they may have had. Most teenagers have some of the experiences and feelings listed on the questionnaires. A few teens have very serious sad feelings or very bad things have happened to them, and they need some help. The purpose of the study is to develop a scale that measures these kinds of experiences so we can learn what is typical for teenagers and what is a more serious problem.

If any of the statements made you feel very uncomfortable or if you would like to talk to someone about feelings you are having trouble with, you can call THE PHONE in Baton Rouge, 924-3900, or talk to your guidance counselor at school. No matter what you put down on the sheets, no one from the study will be able to contact you or your parents again because no one will know who you are or which answers are yours.

Thank you again for your participation.

Appendix K

Item Means and Item-Total Correlation Coefficients for 49 Item ADS Scale

Item	Mean	SD	I-Tot r
1) Walk into a room and suddenly forget why I went in there.	1.17	.77	.51
2) Feel like I'm in a daze or feel like I'm in another world.	.90	.83	.60
3) Listen to the radio and suddenly realize that I don't know what was just said.	1.00	.88	.48
4) Get so involved with something that I lose track of time.	1.82	.89	.43
5) Feel like I'm a different person.	.59	.80	.55
6) Imaginary friends talk to me or comment on things that I'm doing or thinking.	.21	.62	.41
7) Difficulty concentrating or paying attention.	1.30	.90	.47
8) Nightmares or other sleep problems.	.63	.87	.37
10) Sudden mood changes going from very happy to very sad or very sad to very happy for no apparent reason.	.97	1.00	.47
11) Unhappy, sad or depressed.	.89	.84	.52
12) Inconsistent school performance, making good grades on some days and poor grades on other days.	1.10	1.01	.46
13) Think about hurting myself.	.97	.92	.53

Item	Mean	SD	I-Tot r
14) Deliberately cut or physically harm myself.	.40	.69	.48
15) Been told I did things that I don't remember doing.	.19	.52	.58
16) Wish I were dead or never been born.	1.16	.94	.57
17) Feel as though I'm watching myself from outside of my body even though I'm awake.	.99	.89	.54
18) Feel empty inside.	.55	.80	.55
19) Don't seem to feel the same emotions as others do.	.79	.91	.61
20) Accused of lying when I don't think that I did.	1.19	.96	.50
21) Feel that things around me are not real.	.78	.84	.59
22) Feel that my body is not part of me.	.74	.82	.61
23) Remember something that happened before so clearly that it feels like its happening again.	1.00	.88	.49
24) Not knowing whether something was a dream or if it really happened.	.84	.92	.54
25) Be in a place I know well but feel like I've never been there before.	.40	.73	.55
26) Have daydreams that seem like they are really happening.	.73	.85	.54
27) Become so interested in a movie that I don't know what else is going on around me.	.53	.75	.39

Item	Mean	SD	I-Tot r
28) Ignore or not feel physical pain.	1.00	.93	.39
29) Ignore or not feel emotional pain.	.30	.65	.38
30) Talk out loud to myself when alone.	.84	.92	.48
31) Unaware of my feelings.	.40	.73	.51
32) Some days behave so differently than usual it's like I'm two totally different people.	.73	.85	.58
33) Find things that I've written that I don't remember writing.	.53	.75	.47
34) My mind suddenly goes blank.	1.00	.93	.61
35) Feel as though I am not real.	.30	.65	.68
36) Don't seem to have the same feelings as others.	.76	.84	.55
37) Feel as though I'm being controlled by someone else.	.49	.83	.46
38) Hear voices talking to me that others can't hear.	.25	.63	.55
39) Complete tasks easily some days but find the same things very difficult on other days.	.93	.83	.56
40) Feel like a different person and want to be called by a different name.	.22	.60	.46
41) Feel disconnected or checked-out.	.34	.66	.57
42) Don't seem to have any feelings.	.34	.69	.53

Item	Mean	SD	I-Tot r
43) Feel numb.	.30	.64	.54
44) Suddenly find myself in a place and don't remember how I got there.	.33	.65	.57
45) Have blank spells where I lose time and don't know what happened.	.36	.67	.60
46) Have large gaps in my memory of the past.	.45	.75	.59
47) Listen to someone talk and realize I did not hear part or all of what the person said.	1.27	.90	.51
48) Find myself in clothes that I don't remember putting on.	.13	.45	.38
49) Get teased for acting really immature.	.43	.72	.32
50) Hear voices having conversations in my head.	.26	.65	.55

Appendix L

Item Means and Item-Total Correlation Coefficients for 21-Item Dissociation/PTSD Scale of the Youth Self-Report

Item		Mean	SD	Item-Tot r
3.	Argue a lot	1.28	.64	.36
8.	Trouble concentrating or paying attention	.99	.68	.51
9.	Can't get mind off certain thoughts	1.04	.82	.42
11.	Too dependent on adults	.57	.66	.27
13.	Feel confused or in a fog	.53	.68	.83
17.	Daydream a lot	.96	.74	.39
29.	Afraid of situations, etc.	.67	.76	.85
31.	Afraid might think or do something bad	.34	.56	.35
34.	Feel others are out to get me	.32	.55	.39
42.	Rather be alone	.62	.63	.39
45.	Nervous or tense	.86	.70	.56
47.	Have nightmares	.54	.63	.42
50.	Too fearful or anxious	.53	.66	.55
52.	Feel too guilty	.37	.60	.44
56B.	Headaches	.71	.71	.39
56C.	Nausea	.41	.61	.50
56F.	Stomachaches	.61	.70	.46
56G.	Vomiting	.14	.39	.36
69.	Secretive	.89	.69	.38
87.	Moods or feelings change suddenly	.90	.76	.49
100.	Trouble sleeping	.44	.69	.41

Appendix M

Item Means and Item-Total Correlation Coefficients for 19-Item M-CISDE

Item	Mean	SD	Item-Tot r
2.	.08	.28	.38
3.	.12	.33	.24
5.	.12	.33	.52
6.	.36	.48	.60
7.	.09	.29	.48
8.	.16	.37	.32
10.	.39	.49	.37
11.	.37	.48	.34
12.	.28	.45	.48
13.	.45	.50	.32
14.	.15	.36	.53
15.	.33	.47	.32
16.	.37	.48	.41
17.	.13	.34	.39
18.	.53	.50	.29
19.	.20	.40	.36
20.	.10	.30	.49
22.	.08	.28	.34
23.	.12	.33	.47

Vita

Colleen Mary Fitzmaurice, daughter of Mr. and Mrs. Edmond H. Fitzmaurice, Jr., was born in New Orleans, Louisiana on November 9, 1961. In May, 1979, she was graduated from St. Scholastica Academy in Covington, Louisiana. Upon completion of high school, Colleen entered Louisiana State University and received a Bachelor of Arts degree in Political Science in December, 1981 and a Bachelor of Science degree in Psychology in May, 1984. She enrolled in the School Psychology program to pursue graduate studies. She obtained her Master of Arts degree from Louisiana State University in December, 1987 and completed her internship in Livingston Parish school system, Livingston, Louisiana.

DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Colleen Mary Fitzmaurice

Major Field: Psychology

Title of Dissertation: Adolescent Dissociation: The Development and Initial Validation of the Adolescent Dissociation Scale

Approved:

Mary L Kellen
Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

Frances Beck

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Date of Examination:

May 16, 1995